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Application Number 09/993,104

Filing Date November 6, 2001

First Named Inventor Mike Vargo

Art Unit 2616

Examiner Name Kerri M. Rose

Attorney Docket Number PA2073US

ENCLOSURES (Check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance Communication to TC
<input checked="" type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
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<input type="checkbox"/> Reply to Missing Parts/Incomplete Application	Total page number does not include postcard. Presently submitted appeal brief is in triplicate whereas the fee transmittal total two pages. The present transmittal sheet is of a single page.	
<input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Carr & Ferrell LLP		
Signature			
Printed name	Robert D. Hayden		
Date	March 29, 2007	Reg. No.	42,645

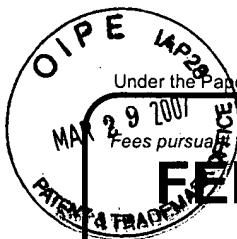
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Typed or printed name	Robert D. Hayden, Reg. No. 42,645	Date	March 29, 2007

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FEE TRANSMITTAL
For FY 2006☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 250.00

Complete if Known

Application Number	09/993,104
Filing Date	November 6, 2001
First Named Inventor	Mike Vargo
Examiner Name	Kerri M. Rose
Art Unit	2616
Attorney Docket No.	PA2073US

METHOD OF PAYMENT (check all that apply)☒ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____☒ Deposit Account Deposit Account Number: 06-0600 Deposit Account Name: Carr & Ferrell LLP

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FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180
Total Claims	Extra Claims	Fee (\$)
- 20 or HP =	x	=
HP = highest number of total claims paid for, if greater than 20.		
Indep. Claims	Extra Claims	Fee (\$)
- 3 or HP =	x	=
HP = highest number of independent claims paid for, if greater than 3.		

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50 =	(round up to a whole number) x	=	

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Appeal Brief (41.20(b)(2))

Fees Paid (\$)

250.00

SUBMITTED BY

Signature		Registration No. (Attorney/Agent) 42,645	Telephone 650.812.3400
Name (Print/Type)	Robert D. Hayden		Date March 29, 2007

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPELLANTS: Mike Vargo et al.
APPLICATION NO.: 09/993,104
CONF. NO.: 8986
TITLE: System and Method for Dynamically Changing Error
Algorithm Redundancy Levels
FILING DATE: November 6, 2001
EXAMINER: Kerri M. Rose
ART UNIT: 2616
ATTY. DKT. NO: PA2073US
CUSTOMER NO.: 22830

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BRIEF ON APPEAL UNDER 37 C.F.R. § 41.37

Sir:

This brief is submitted in an Appeal from the non-final Office Action of March 8, 2006 rejecting claims 1-6 of the above-referenced patent application. Appeal is appropriate, under 37 C.F.R. § 41.31(a), as the claims have been twice rejected in a prior parent application, 08/907,686. A petition and a fee for a five-month extension of time was submitted with Amendment A received in the Patent Office on March 19, 2007.

(1) Real Party in Interest under 37 C.F.R. § 41.37(C)(1)(i)

The real party in interest in the above-referenced patent application is Verso Technologies, Inc.

(2) Related Appeals and Interferences under 37 C.F.R. § 41.37(C)(1)(ii)

To the knowledge of Appellants' legal representative, there are no related appeals or interference proceedings which will directly affect, or be directly affected by, or have a bearing on, the Board's decision in this Appeal.

(3) Status of Claims under 37 C.F.R. § 41.37(C)(1)(iii)

Claims 1-5 stand rejected and are being appealed.

Claim 6 is cancelled.

(4) Status of Amendments under 37 C.F.R. § 41.37(C)(1)(iii)

Although the pending application was not under final rejection at the time of appeal, an Amendment A was filed on March 19, 2007 canceling claim 6 to place the application in better condition for appeal.

(5) Summary of Claimed Subject Matter under 37 C.F.R. § 41.37(C)(1)(v)

Independent claim 1 provides a system architecture for a gateway server 10. See Figure 2. The claimed system architecture comprises hardware for interfacing with the internet and a public switched telephone network. An example of hardware for interfacing with the internet is "Network Interface Card (NIC) 26" (Specification at page

7 line 25) that “supports an Internet Protocol (IP) such as TCP (Transmission Control Protocol) or UDP (User Datagram Protocol) connection to the Internet 17.” Specification at page 7 line 29 to page 8 line 2. An example of hardware for interfacing with a public switched telephone network is “telecommunications hardware 25 [that] supports analog, T1 or Integrated Services Digital Network (ISDN) connections to the PSTN 11.” Specification at page 7 lines 27-29.

The system architecture of independent claim 1 also comprises software for connecting telephone calls between transmitters and receivers. Software for connecting telephone calls between transmitters and receivers is shown as “gateway software 24” (Specification at page 7 line 22) with reference to Figure 2 and referred to as “gateway server software utilities 24” with reference to Figure 3. Specification at page 8 lines 2-3.

The claimed software has the capability of dynamically changing a level of redundancy of a forward error correction algorithm from packet-to-packet in a data stream so as to accommodate data dropouts. “The particular error correction algorithm of the invention is described in Figures 8(a) to 8(d).” Specification at page 13 lines 6-7. “[G]enerally, for a redundancy of level k , for $k = 0$ to L , the algorithm provides that the i^{th} data packet is repeated k times at positions $(i + k)_j$ for $j = 1$ to k .” Specification at page 14 lines 28-31. “One important feature of the forward error correction algorithm of the invention is that the level of redundancy can be dynamically varied from packet to packet within a data stream. For example, one group of packets can have a level one redundancy, the next group of packets can have a level three redundancy, and the following group of packets can have a level three redundancy. Selecting the level of

redundancy is one of the features performed by the voice port.” Specification at page 15 lines 1-9.

Figures 11(b) and (c) show how the voice port 61 performs a codec selection on the voice data stream 200 of Figure 11(a) to maintain speech quality. Voice port 61 has speech quality detector 221 and codec selector 222 modules. A first speech packet (packet #1 in Figure 11(a)) enters voice port 61, and speech quality of this packet is detected by speech quality detector 221. The quality of packet #1 is determined to be acceptable by the speech quality detector module 221 since it is above the baseline B in Figure 11(c). Accordingly, codec selector module 222 maintains the codec and redundancy as “T0” for packet #2. This continues until speech quality detector 221 determines that the speech quality of packet #4 is unacceptable; the speech quality falls below baseline B due to changing network conditions. Codec selector 222 responsively changes both the codec and the redundancy for packet #5 to “V2.” Figure 11(c) shows that level two redundancy Voxware for packets #5 through #10 produces an acceptable speech quality. Thus, voice port 61 responds to changing network conditions to maintain speech quality. Specification at page 24 lines 3-22.

(6) Grounds of Rejection to be Reviewed on Appeal under 37 C.F.R.

§ 41.37(C)(1)(vi)

Claims 1-3 and 5 have been rejected under 35 U.S.C. §102(e) as being anticipated by Guy et al. (US 5,940,479). Claim 4 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Guy et al. in view of Astrin (US 6,026,082).

(7) Argument under 37 C.F.R. § 41.37(C)(1)(vii)

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.”

Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or

characteristic.” *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993). “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

Claim 1 requires hardware for interfacing with the internet and a public switched telephone network. The Examiner has equated elements 204 and 210 of FIG. 2 of Guy et al. with the hardware for interfacing with the internet and a public switched telephone network. Guy et al. provides “a PC interface module 210” (col. 7 line 62). As can be seen from FIG. 2, the PC interface module 210 is connected to network interface card 218 and then to LAN 113. Guy et al. teaches that “[e]xamples of LANs include an ethernet and a token ring network, [and] examples of a WAN include leased lines, frame relay, asynchronous transfer mode (ATM) networks, and the Internet.” (col. 4 lines 61-64). Moreover, [t]he format of a packet can be different for each LAN and WAN.” (col. 1 lines 55-56).

Appellants contend that PC interface module 210 of Guy et al. does not read on the limitation of hardware for interfacing with the internet. As explained by Guy et al., the Internet is an example of a WAN, not a LAN, and the format of a packet can be different for each LAN and WAN. Thus, it follows that PC interface module 210, which is connected to LAN 113, is not expressly hardware for interfacing with the internet.

Moreover, Appellants contend that the PC interface module 210 is also not inherently hardware for interfacing with the internet. The mere possibility that the PC

interface module 210 may be able to interface with the internet is not sufficient to establish inherency. The Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the ability to interface with the internet necessarily flows from the teachings of the applied prior art. Here, however, Guy et al. teaches that the format of a packet can be different for each LAN and WAN. Thus, it follows that PC interface module 210, which is configured to interface with a LAN, does not necessarily possess the ability to interface with the internet.

Claim 1 also requires that the claimed software have the capability of dynamically changing a level of redundancy of a forward error correction algorithm from packet-to-packet. Appellants note that the claim specifically requires that the software have the ability to change a level of redundancy *of the algorithm* itself, which implies that the forward error correction algorithm necessarily includes a redundancy level that can be changed.

Guy et al. teaches that “[a] forward error correction (FEC) function can be enabled automatically, if a predetermined percentage of packets are not being received by the second server 122 in a timely manner, or enabled manually either by the server 112 or remotely, using the SNMP network management unit 418.” (col. 15 lines 45-49). Here, although the FEC function, as a whole, can be either enabled or not enabled in Guy et al., Guy et al. does not expressly teach that the algorithm of the FEC function itself specifically includes a variable redundancy level. Since Guy et al. does not expressly teach a FEC algorithm with more than one level of redundancy, Guy et al. cannot teach

dynamically changing a level of redundancy of a forward error correction algorithm as required by claim 1.

Moreover, claim 1 requires the ability to change redundancy states dynamically on a packet-to-packet basis and it is clear that the FEC function of Guy et al. does not even switch dynamically between the enabled and the not enabled states on a packet-to-packet basis. Rather, in Guy et al., automatically enabling the FEC function is triggered only when a predetermined *percentage* of packets has not been received. (col. 15 lines 45-47). Clearly, Guy et al. teaches a time-averaged sampling of packets to determine whether the FEC function should be enabled, rather than a packet-to-packet capability as required by claim 1.

Finally, claim 1 requires that the software functions such that aural data in a packet is entirely duplicated to maintain the voice quality present prior to the data dropout. Guy et al. notes, however, that “the present invention stores a reduced-quality version consisting of partial voice data from the previous packet as FEC information 904.” (col. 16 lines 23-25). Thus, Guy et al. does not teach entirely duplicating aural data in a packet to maintain the voice quality present prior to the data dropout. Although Guy et al. teaches that “generally the user cannot detect the difference between original and reconstructed data,” as noted by the Examiner, Office Action page 5, this does not teach that the aural data in a packet is *entirely duplicated*, as required by the claim.

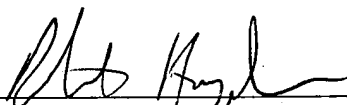
In summary, Guy et al. does not expressly or inherently teach that PC interface module 210 is hardware for interfacing with the internet. Guy et al. also does not teach that the forward error correction algorithm includes a changeable redundancy level. Further, Guy et al. does not teach that the forward error correction algorithm can be switched dynamically on a packet-to-packet basis. Lastly, Guy et al. does not teach that the aural data in a packet is entirely duplicated. For at least these reasons, Guy et al. does not anticipate claim 1, nor dependent claims 2, 3, and 5.

For all the foregoing reasons, it is requested that the Board of Patent Appeals and Interferences reverse the rejection of the Examiner regarding claims 1-5 so that this case may be allowed and pass to issue in a timely manner.

Respectfully submitted,

Mike Vargo et al.

Date: 3/29/2007


Robert D. Hayden, Reg. No. 42,645

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Claims Appendix under 37 C.F.R. § 41.37(C)(1)(viii)

Claims on Appeal:

1. A system architecture for an internet telephone gateway server, comprising:

 hardware for interfacing with the internet and a public switched telephone

 network; and

 software for connecting telephone calls between transmitters and receivers, said

 software having the capability of dynamically changing a level of

 redundancy of a forward error correction algorithm from packet-to-packet

 in a data stream so as to accommodate data dropouts,

 whereby aural data in a packet is entirely duplicated to maintain the voice quality

 present prior to the data dropout.
2. The system architecture of claim 1, wherein said gateway server supports full duplex

 voice transmission with a latency of less than 500 milliseconds.
3. The system architecture of claim 1, wherein said software has the capability of

 dynamically varying the size or bundling of a data packet from packet-to-packet.
4. The system architecture of claim 1, wherein said software has the capability of

 dynamically varying from one codec to another codec from packet-to-packet.
5. The system architecture of claim 1, wherein said software varies the size or bundling

 of data packets from packet-to-packet.

Evidence Appendix under 37 C.F.R. § 41.37(C)(1)(ix)

Not applicable in the present appeal.

Related Proceedings Appendix under 37 C.F.R. § 41.37(C)(1)(x)

Not applicable in the present appeal.